THE REPORT TO THE GOVERNOR ON THE EFFICACY OF GEORGIA'S DRINKING WATER SYSTEM CAPACITY DEVELOPMENT PROGRAM

Georgia Environmental Protection Division Department of Natural Resources

August 2002

EXECUTIVE SUMMARY

This report has been prepared for Governor Roy Barnes to outline the progress made in implementing Georgia's drinking water system capacity development program. A copy of the report will also be made available to the public on the Internet at www.dnr.state.ga.us/dnr/environ/.

The 1996 Federal Safe Drinking Water Act (SDWA) Amendments emphasized prevention and assistance to resolve problems with small public water systems and contained incentives, in the form of withholdings, for States to develop and implement a strategy to assist all public water systems in acquiring and maintaining technical, managerial, and financial capacity. The goal is to help small public water systems comply with the national primary drinking water regulations and provide safe, reliable drinking water to their customers. Currently, the State of Georgia has a total of 2,532 active public water systems: 1,666 community water systems, 262 non-transient non-community water systems, and 604 transient non-community systems. Approximately 70% of the public water systems serve less than 500 people.

Under Georgia's capacity development program, local governments have been delegated with the responsibility for deciding how water and wastewater services will be provided in each service area. Before any person may initiate construction of a new privately owned water system, the person must receive concurrence for the project from the local government within its jurisdiction, as well as a denial of water service from the existing local governmentally owned and operated water system. Georgia's capacity development program also requires any person developing a new public water system or acquiring ownership of an existing system to submit a multi-year business plan to demonstrate adequate managerial and financial capacity prior to commencing operation. As of May 2002, the Environmental Protection Division (EPD) has received 201 total business plans for 86 new public water systems and 115 existing public water systems.

In January 1998, the EPD's "Minimum Standards for Public Water Systems" became effective and provided the minimum acceptable design criteria for public water systems in Georgia. Each year, engineers in the EPD's District Offices and Drinking Water Permitting & Engineering Program review approximately 4,000 water system projects for technical adequacy. The projects include, but are not limited to, the design and construction of new source water facilities (intakes, wells, and purchased water connections), water treatment plants (surface water and groundwater sources), finished water storage tanks, pumping facilities, waste handling and disposal facilities, and water mains. EPD personnel also regularly conduct scheduled sanitary surveys and inspections of all public water systems in Georgia to identify and resolve problems that may pose a threat to public health. Official, written documentation is provided to the water system officials of the improvements that are needed to correct the deficiencies and improve the overall technical, managerial, and financial capacity.

EPD continues to utilize informal and formal enforcement actions, such as written Notices of Violations, Consent Orders, and Administrative Orders to obtain compliance with the federal and State drinking water regulations. Each year, approximately 94 enforcement orders are issued to public water systems in Georgia for violations of the SDWA and Georgia's Rules for Safe Drinking Water, Chapter 391-3-5. Whenever possible, deficient or poorly run public water systems are being encouraged, through various compliance and enforcement mechanisms, to consolidate or merge with nearby governmentally owned and operated water systems or water authorities. An average of 35 water systems are successfully consolidated or merged with these public water systems each year.

Through various capacity development strategy efforts, all public water systems in Georgia are being offered or provided assistance to help them acquire and maintain technical, managerial, and financial capacity. The assistance includes, but is not limited to, affordable monitoring and testing services, low interest financing alternatives to correct system deficiencies, local government initiatives, source water

assessment efforts, inexpensive and convenient training opportunities, and direct on-site technical assistance.

A voluntary Drinking Water Fee System, established by the EPD makes compliance monitoring available to all public water systems at a reasonable cost. The drinking water service fee is based on the total population served by the water system, the population type, the type of source water, and the number of entry points. This year, a total of 2,037 public water systems have benefited from services provided by the Drinking Water Fee System, roughly 80.5% of all public water systems.

The USEPA awards capitalization grants to States under a Drinking Water State Revolving Fund (DWSRF) program. Georgia uses a large portion of the grants to provide low interest loans to eligible public water systems needing infrastructure improvements to achieve and maintain compliance with the Safe Drinking Water Act requirements or to protect public health. As of December 2001, a total of \$37 million of DWSRF project assistance has provided funding for 59 water system improvement projects. The State of Georgia has also set aside approximately \$13 million from the DWSRF program to fund outside activities to assist public water systems and further the capacity development program.

The Georgia Water Management Campaign was established between EPD, the Georgia Environmental Facility Authority, the Georgia Municipal Association, and the Association County Commissioners of Georgia to enhance capacity development in Georgia by communicating clearly to local governments the need for improving the technical, managerial and financial capacity of public water systems. The Georgia Water Management Campaign was successful in helping obtain support for capacity development, as well as source water assessment and water resource protection.

The State of Georgia has provided over \$2.5 million to fund regional source water assessment program efforts. Georgia's deadline for completion of source water assessments is November 1, 2003. The results of source water assessments will provide the information necessary for the State of Georgia to develop programs to protect and preserve the critical sources of public water supply. In 2001, the Carl Vinson Institute of Government of the University of Georgia, under contract with EPD, published a guidebook titled, "Linking State Water Programs to Watershed Management". The purpose of the guidebook is to reduce confusion regarding State water programs that have similar water protection and planning requirements, as well as to indicate where the various programs can be linked together.

The State of Georgia has provided funding for the training of water system operators and laboratory analysts by the Georgia Rural Water Association (GRWA) and Georgia Water & Wastewater Institute. Over 4,000 water system personnel attend the training sessions each year. Additional funds are provided for GRWA to conduct a minimum of 625 "circuit rider" type technical assistance visits each year on an as needed or as requested basis. Under the provisions of the contract, GWRA is required to provide up to 10% of the visits within 48 hours of notification by EPD in order to quickly address problems posing an immediate threat to public health.

The activities described above only highlight the numerous efforts made by the State of Georgia to improve the technical, managerial, and financial capacity of public water systems. While EPD has the lead role and regulatory authority for the capacity development program, this agency will not be able to fully achieve the goals of the program without the active involvement of our various stakeholder and partner organizations. In the future, EPD will continue to evaluate the success of the capacity development program, maximize the use of all available resources to help the systems most in need, and develop effective working relationships with other State and local agencies and organizations to further achieve Georgia's long-term goals.

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LIST OF ABBREVIATIONS

GA SDWA Georgia Safe Drinking Water Act of 1977

Minimum Standards Minimum Standards for Public Water Systems, May 2000

O & M Plan Operations & Maintenance Plan

Rules Rules for Safe Drinking Water, Chapter 391-3-5
The Campaign The Georgia Water Management Campaign

LIST OF ACRONYMS

ACCG Association County Commissioners of Georgia

ARC Atlanta Regional Commission
CCR Consumer Confidence Report
CWS Community Water System

DNR Georgia Department of Natural Resources

DWP Drinking Water Program (of the Department of Natural Resources,

Environmental Protection Division)

DWPEP Drinking Water Permitting & Engineering Program (of the Department of

Natural Resources, Environmental Protection Division)

DWSRF Drinking Water State Revolving Fund

EPD Georgia Environmental Protection Division (of the Georgia Department of

Natural Resources)

GEFA Georgia Environmental Facilities Authority

GMA Georgia Municipal Association

GWPCA Georgia Water & Pollution Control Association

GRWA Georgia Rural Water Association
GWWI Georgia Water & Wastewater Institute

MCL Maximum Contaminant Level

NOV Notice of Violation

NPDWR National Primary Drinking Water Regulation
NTNCWS Non-Transient Non-Community Water System

PPG Performance Partnership Grant

PWS Public Water System

RDC Regional Development Center SDWA Safe Drinking Water Act

SDWIS Safe Drinking Water Information System

SMP Scheduled Maintenance Plan
SNC Significant Non-Compliance
SOP Standard Operating Procedure
SWAP Source Water Assessment Program
TMF Technical, Managerial and Financial
TNCWS Transient Non-Community Water System
USEPA U. S. Environmental Protection Agency

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1.0 Introduction

The 1996 Federal Safe Drinking Water Act (SDWA) Amendments were passed by Congress in part to address significant problems small public water systems (PWSs) were having providing safe and reliable drinking water to their customers. The 1996 Federal SDWA Amendments emphasized prevention and assistance to resolve these problems and included incentives for States to develop the following:

- □ A capacity development authority program to ensure that all new community water systems (CWSs) and non-transient non-community water systems (NTNCWSs) commencing operation after October 1, 1999, demonstrate technical, managerial, and financial (TMF) capacity to comply with all National Primary Drinking Water Regulations (NPDWRs); and
- □ A capacity development strategy program to assist all existing PWSs in acquiring and maintaining TMF capacity to comply with SDWA requirements.

Section 1420(c)(3) of the 1996 Federal SDWA Amendments requires the head of the State agency that has primary responsibility to carry out the SDWA to submit to the Governor and the public a report on the efficacy of the capacity development strategy and the progress made toward improving the TMF capacity of PWSs in the State. The report must be submitted no later than 2 years after the date on which a State first adopts a capacity development strategy, and every 3 years thereafter.

The purpose of this document is to furnish the Governor of the State of Georgia and the public with a report that adequately addresses the efficacy of Georgia's capacity development strategy and the progress made toward improving the TMF capacity of PWSs in Georgia. The report describes Georgia's capacity development efforts in detail and indicates that a substantial volume of activity and workload has been associated with both the capacity development authority program (new water systems) and capacity development strategy program (existing water systems). Measurements of success of the capacity development program and the improvement in the TMF capacity of PWSs include, but are not limited to, compliance data, the number of business plans developed by PWSs, the attendance at operator training sessions and certification examinations, the number of "circuit-rider" type technical assistance visits, and the number of private PWSs consolidated or merged with local governmentally owned water systems or water authorities. Since capacity development is an incremental, long-term process, more specific measures of improvement in the TMF capacity of PWSs are not available at this time. The report clearly demonstrates that the Environmental Protection Division (EPD) is making significant progress toward improving the TMF capacity of PWSs in Georgia.

2.0 Background

As of April 2002, the State of Georgia had a total of 2,532 active PWSs. Of these systems, there were 1,666 CWSs, 262 NTNCWSs, and 604 transient non-community water systems (TNCWSs). Refer to Figure 2-1 for a graphical representation of the PWSs in Georgia.

Of the 1,666 CWSs, 105 systems obtain their drinking water from surface water sources, 89 systems purchase surface water for distribution, and 1,472 systems obtain their water from groundwater, purchased groundwater, or groundwater under the direct influence of surface water sources. Refer to Figure 2-2 for a graphical representation of the CWSs in Georgia.

Figure 2-1. Breakdown of public water systems in Georgia.

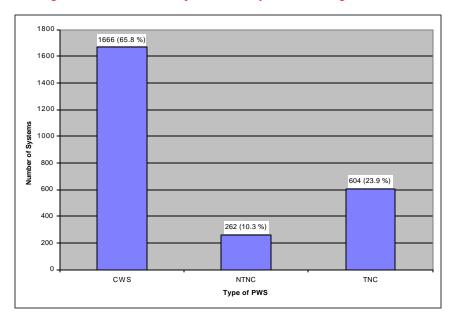
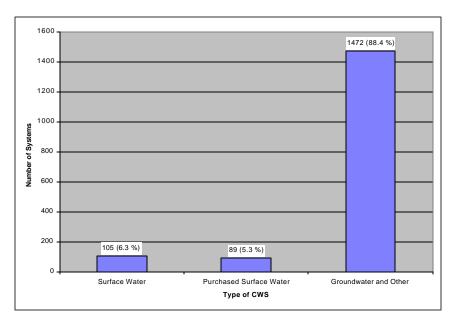


Figure 2-2. Breakdown of community water systems in Georgia by source type.



By population statistics, approximately 6.8 million Georgia residents are served by PWSs: 4 million are served by surface water, 1.3 million are served by purchased surface water, and 1.5 million are served by groundwater, purchased groundwater, or groundwater under the direct influence of surface water sources. Although CWSs utilizing surface water sources comprise only 11.6% of the total number of CWSs, they account for approximately 78% of the population served by all CWSs (5.3 million people). The other 22% of the population is served by CWSs utilizing groundwater, purchased groundwater, or groundwater under the direct influence of surface water sources. Refer to Figure 2-3 for a graphical representation of the community population served by the various sources of public water supply in Georgia.

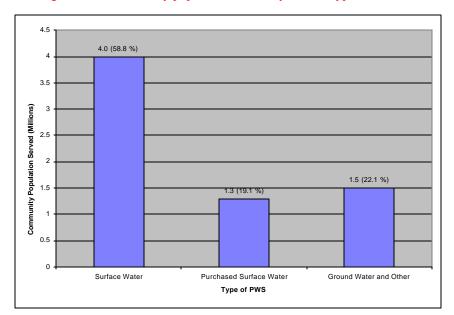


Figure 2-3. Community population served by various types of sources.

In regard to capacity development, a water system with a history of Significant Non-Compliance (SNC) is defined as a CWS or NTNCWS, which has been a SNC in at least three quarters during the last three years. From FY 1994 to FY 1996, the State of Georgia had 67 historical SNCs. From FY 1997 to FY 1999, the number of historical SNCs increased to 87. The majority of historical SNCs were due to monitoring and reporting violations. Very few of the historical SNCs were a result of Maximum Contaminant Level (MCL) violations only, which pose an immediate threat to public health.

As is the case nationally, very small PWSs accounted for a disproportionate number of the historical SNCs. Very small systems are those defined as serving populations of 500 people or fewer. In Georgia, there are approximately 1,354 very small CWSs and NTNCWSs and 1,928 total CWSs and NTNCWSs. These very small systems constitute 70% of the total inventory of CWSs and NTNCWSs, but account for over 95% of the historical SNCs. In contrast, small systems (those defined as those serving between 500 and 3,300 persons) comprise almost 19% of the total inventory of CWSs and NTNCWSs, but account for only 5% of the historical SNCs. There were no historical SNCs among systems serving populations greater than 3,300 persons. Very small water systems face many challenges and do not have the resources of the larger systems. It is for these and other reasons that Georgia has targeted assistance to the smaller water systems through compliance and enforcement mechanisms, capacity development efforts, and other initiatives. These activities are discussed in detail in later sections.

In Region IV of the United States Environmental Protection Agency (USEPA), historical SNCs account for approximately 3% to 6% of the total inventory of CWSs and NTNCWSs. In Georgia, historical SNCs account for approximately 4.5% of the total inventory of CWSs and NTNCWSs. Georgia's diligent efforts to assist PWSs in developing and maintaining TMF capacity has kept the number of historical SNCs to a minimum.

In its capacity development strategy, Georgia committed to utilizing compliance rates to establish a baseline and measure improvement in the TMF capacity of water systems. In addition to the data on historical SNCs, EPD has decided to track the total number of Total Coliform Rule (TCR) violations and the number of systems with these violations. TCR violations are often a result of a failure to monitor or report, collect and have analyzed to correct number of samples, or perform the required repeat testing. These types of violations can be minimized through capacity development efforts that improve operations and management, such as education, operator training, technical assistance, and compliance and

enforcement initiatives. By tracking violations of the TCR only, the compliance data will not be affected by new regulations and will be more indicative of improvements made towards helping water systems comply with the NPDWRs. Figure 2-4 displays the compliance data for the TCR and indicates that, in any given year, an average of 873 water systems account for 1,681 total TCR violations. Of the 1,681 total TCR violations, only 183 (or 10.8%) were a result of an MCL exceedance. For the TCR, an MCL is exceeded if any of the following apply: more than one sample tests positive for total coliform (for systems collecting less than 40 routine samples per month); more than 5% of the samples test positive for total coliform (for systems collecting 40 or more routine samples per month); any repeat sample is positive for fecal coliform or *E. Coli*; or a routine sample which is positive for fecal coliform or *E. Coli* is followed by a positive total coliform sample. It is important to note that any system with a positive for fecal coliform or *E. Coli* must notify EPD immediately and appropriate measures are taken to protect public health, such as issuing Boil Water Advisories. The MCL violations, although very serious, are generally brief in duration and quickly resolved by EPD.

Figure 2-4. Compliance data for the Total Coliform Rule from 1998 to 2001.

	Number of TCR violations			Number of Systems with One or More TCR Violations		
Year	Total	MCL	Non-MCL	Total	MCL	Non-MCL
1998	1247	228	1019	753	160	593
1999	1461	151	1310	858	111	747
2000	2242	197	2045	968	117	851
2001	1775	155	1620	913	121	792
Average	1681	183	1499	873	127	746

Analyzing the data in Figure 2-4 further indicates that each year approximately 34% of the total 2,532 PWSs have one or more TCR violations, but only 5% of these systems have a TCR violation resulting from an MCL exceedance.

Although the data displayed in Figure 2-4 does not indicate consistent improvement in compliance with the TCR, it does establish a baseline to measure long-term improvement in the TMF capacity of water systems in Georgia and the ability of these water systems to meet the NPDWRs. Improving the TMF capacity of water systems is a gradual, long-term process, and EPD did not anticipate immediate success from the capacity development program. Over the next 10 years, however, EPD expects, as a result of improvement in the TMF capacity of water systems, the total number of TCR violations and the number of systems with these violations to be noticeably lower than those presented for 1998 to 2001.

3.0 Capacity Development Authority

Georgia's capacity development authority program to ensure that all new CWS and NTNCWS demonstrate adequate TMF capacity for compliance with the NPDWRs began October 1, 1999. The two control points include the review and approval of proposed PWSs prior to construction and the issuance of a Permit to Operate a Public Water System. An important part of the capacity development authority program is the requirement that the owner submit a multi-year business plan, which adequately demonstrates the water system's managerial and financial capacity to comply with all drinking water regulations in effect, or likely to be in effect.

EPD has successfully implemented all aspects of the new water systems program. The following statistics summarize the ongoing efforts as of May 2002:

- □ 201 total business plans have been received since the beginning of the capacity development authority program on October 1, 1999;
- □ 65 new water systems commencing operation after October 1, 1999, have satisfactorily demonstrated adequate TMF capacity and have received an operating permit;
- □ 21 new water systems that submitted a business plan are pending approval by EPD. No operating permits have been issued for these water systems;
- □ 115 business plans were submitted for existing water systems; ¹
- □ 20 new water systems commencing operation after October 1, 1999, have been required to submit business plans as part of a compliance schedule in the permit; and
- □ 34 existing water systems have been required to submit business plans as part of a compliance schedule in the permit, due to a change of ownership.

One of the 65 new water systems permitted after October 1, 1999, was on the list of historical SNCs for FY 1997 to FY 1999. It should be noted, however, that this system was an unapproved, unpermitted PWS when discovered by EPD in 1996 during a routine complaint investigation. Analyzing the data further indicates that approximately 1.5% of the new systems were historical SNCs, compared to 4.5% for the total inventory of CWSs and NTNCWSs. The limited data would suggest that the capacity development authority program has had a positive affect.

EPD has delegated to local governments the responsibility to decide how water and wastewater services will be provided in each service area. No water systems that have adequately demonstrated TMF capacity have been denied approval and an operating permit by EPD. As shown above, however, there are 21 new systems that have submitted a business plan that are still pending approval by EPD.

EPD's move to place engineering positions in the District Offices has enabled staff members to visit and inspect the new water systems while under construction, prior to permitting, or soon after commencing operation in an effort minimize early violations and other compliance problems.

4.0 Capacity Development Strategy

USEPA approved Georgia's capacity development strategy program on September 21, 2000. EPD has fully implemented the strategy, which provides targeted, voluntary, and routine assistance to PWSs in need of acquiring and maintaining adequate TMF capacity.

Targeted assistance is directed at systems most in need of acquiring adequate TMF capacity. Systems are identified and prioritized based upon the knowledge gained by EPD staff through compliance records, sanitary surveys/inspections, complaints, and the potential impact of new regulations. Examples of targeted assistance include, but are not limited to, on-site technical assistance, guidance and support for new rules and regulations, compliance initiatives to reduce the number of monitoring and reporting and violations, and formal enforcement actions aimed at improving the TMF capacity of deficient or poorly run water systems. To date, the targeted assistance has proven to be most challenging, due to the lack of coordination between EPD programs and the other organizations participating in the capacity development effort and the lack of a formal ranking scheme for the identification and prioritization of

¹ A business plan may be submitted by the owner of an existing water system for three reasons: 1) the owner recently acquired ownership of the water system and was required to submit the business plan, as per Section 391-3-5-.17 of the Rules for Safe Drinking Water; 2) the owner acquired ownership of another water system and submitted a business plan covering all systems under his/her ownership; or 3) formal enforcement action required the owner to submit the business plan.

systems most in need of assistance. EPD will continue to work with stakeholders and other organizations to improve in this area.

Voluntary assistance is available to all PWSs in Georgia to help them to acquire and maintain TMF capacity. PWSs that voluntarily choose to improve their TMF capacity will be able to more consistently comply with all regulatory requirements. Although the assistance is voluntary, compliance with the federal and State rules and regulations is mandatory, and failure to comply may lead to enforcement action, including penalties. Examples of this type of assistance include, but are not limited to, on-site technical assistance by the Georgia Rural Water Association (GRWA) and the Peer Review Program, compliance monitoring and testing at a reasonable cost through EPD's drinking water fee system, CCR assistance, and operator training conducted by the GRWA and the Georgia Water & Wastewater Institute (GWWI).

Routine assistance is provided by EPD under the authority of the "Georgia Safe Drinking Water Act of 1977" (GA SDWA) and the Rules promulgated thereunder. This type of assistance is provided as part of the normal duties of EPD regulatory staff. The assistance is provided to existing systems on a scheduled or triggered basis or to existing systems undergoing changes that may affect the TMF capacity of the system. For example, EPD conducts sanitary surveys on a scheduled basis to identify and correct deficiencies that pose a potential threat to public health or that may lead to future compliance problems. EPD also reviews plans and specifications for systems experiencing growth/expansion in order to assure technical adequacy of the additions, extension, or modifications. In addition, a new owner is required to submit a business plan to adequately demonstrate managerial and financial capacity prior to transfer of an existing operating permit.

EPD's capacity development strategy is dynamic and will change with the priorities established by EPD. In its efforts, EPD continues to utilize a large portion of the available Drinking Water State Revolving Fund (DWSRF) set-asides to fund activities necessary to assist PWSs in acquiring and maintaining adequate TMF. As of April 2002, Georgia has set aside approximately \$13 million in DWSRF funds, roughly 22.8% of the \$57 million total DWSRF capitalization grants. The following sections highlight a few of the on-going activities throughout the State of Georgia.

4.1 Plan Review/Approvals and the "Minimum Standards for Public Water Systems"

Georgia has had a plan review requirement for PWSs since the State legislature enacted the GA SDWA. This requirement helps ensure that new and existing PWSs have the technical capacity to provide safe drinking water to their customers.

The Rules for Safe Drinking Water (Rules) promulgated under the GA SDWA established the policies, procedures, requirements, and standards to implement the GA SDWA. Paragraph 391-3-5-.04(1) of the Rules requires that a person must obtain EPD's approval before erecting, constructing, or operating a PWS or making substantial enlargements, extensions, additions, modifications, renovations or repairs. Section 391-3-5-.05 of the Rules specifies the requirements for the preparation and submission of engineering reports/plans and specifications for new or existing PWSs. The engineering report/plans and specifications must be completed by a professional engineer, licensed to practice in the State of Georgia.

In January 1998, EPD's Minimum Standards for Public Water Systems" (Minimum Standards) became effective and provided the minimum acceptable design criteria for PWSs in Georgia. Paragraph 391-3-5-.05(3) of the Rules requires that beginning January 1, 1998, all new PWSs and additions or extensions to existing systems must be designed in accordance with the latest edition of EPD's Minimum Standards.

In 2001, over 4,300 water system projects for both new and expanding PWSs were reviewed and approved under EPD's regulatory authority. The projects include, but are not limited to, the design and construction of new source water facilities (intakes, wells, and purchased water connections), water treatment plants (surface water and groundwater sources), finished water storage tanks, pumping facilities, waste handling and disposal facilities, and water mains. EPD environmental engineers also conducted inspections of PWSs, including those under construction, to help ensure these systems have adequate technical capacity.

4.2 Business Plan and Operations & Maintenance Plan

In May 2000, the Minimum Standards were revised to include technical guidance for the development of a business plan and Operations & Maintenance Plan (O & M Plan). EPD currently requires completion of a business plan and O & M Plan for new systems (prior to issuance of Permit to Operate a Public Water System) and for existing systems changing ownership. Systems constructing or expanding surface water treatment plants are also required to submit O & M Plans prior to start-up and permitting of the facilities. In a few instances, business plans and O& M Plans have been required as part of formal enforcement actions in an effort to improve the managerial and financial capacity of these water systems.

Subparagraph 391-3-5-.04(7)(c) of the Rules requires a new owner to submit a multi-year business plan, which adequately demonstrates the water system's managerial and financial capacity to comply with all drinking water regulations in effect, or likely to be in effect. The business plan must be prepared in accordance with the latest edition of the Division's Minimum Standards. The business plan is required be updated at intervals determined by the Director.

Paragraph 391-3-5-.17(8) of the Rules states that a permit may be transferred due to a change in ownership. The succeeding owner shall, upon the request of the Director, provide such additional information as is necessary to enable the Director to transfer the permit including, but not limited to, proof of ownership and a business plan.

As of May 2002, 201 total business plans have been received by EPD for 86 new water systems and 115 existing water systems. In addition, 20 new water systems and 34 existing water systems have been required to submit business plans as part of a compliance schedule in the operating permit. At least 3 water systems have submitted detailed O & M Plans in order to satisfy conditions of formal enforcement actions.

4.3 Sanitary Surveys and Inspections

EPD regularly conducts scheduled sanitary surveys of all PWSs in Georgia. The principal purpose of the sanitary surveys is to identify and resolve problems that may pose a threat to public health. EPD also uses the sanitary surveys to identify improvements that need to be made to improve the TMF capacity of the water systems. The sanitary survey report provides official, written documentation to the water system officials of the improvements that need to be made to protect public health and to improve the overall capacity of the water system.

EPD also performs inspections and provides on-site technical assistance and training to water systems. On-site technical assistance is very beneficial since most violations result from a failure of the owner or operator to understand the complex monitoring regulations and perform the required testing and reporting. EPD has always attempted to target the water systems with poor track records and visit them more often than systems that do not have any compliance problems.

In 2001, the Drinking Water Permitting & Engineering Program (DWPEP) conducted 66 sanitary surveys and 89 on-site inspections of water systems treating or purchasing surface water or treating groundwater under the direct influence of surface water. The sanitary survey system evaluation forms were revised January 2001 to include areas for the DWPEP staff to verify written procedures, policies, programs, and other documentation that may affect the TMF capacity of these systems. Such items include, but are not limited to, Standard Operating Procedures (SOPs), Scheduled Maintenance Plans (SMPs), O & M Plans, Emergency Plans, Safety Programs, material and construction standards, business plans, organizational charts, plant schematics, distribution maps, documentation of repairs and complaints, unaccounted-forwater, monitoring plans, and field log books.

During the same time period, the EPD District Offices in Albany, Brunswick, Savannah, Athens, and Atlanta conducted a total of 369 sanitary surveys of PWSs utilizing groundwater as a source of public water supply. The District Office staff also performed numerous other on-site inspections and technical assistance visits to assist PWSs.

4.4 Area Wide Optimization Program

EPD continues to actively participate in USEPA's multi-state Area Wide Optimization Program (AWOP). The goal of the program is to provide maximum protection against microbial contamination by optimizing the performance of existing surface water treatment plants. The program stresses the multiple barrier approach (source water, flocculation, sedimentation, filtration, and disinfection) and evaluates facilities with respect to more stringent optimization performance goals. In AWOP, the most resource-intensive evaluation tools, such as Comprehensive Performance Evaluations (CPEs) and Performance Based Training (PBT) are focused on the systems presenting the greatest risk to public health.

A CPE is a thorough review and analysis of a facility's design capabilities and associated administrative, operational and maintenance practices as they relate to achieving optimum plant performance. Currently, 5 employees from the DWPEP are certified (or that have met the requirements to become certified) to conduct regulatory CPEs. Over the last four years, multi-state CPEs have been conducted in Georgia at Ellijay, Dublin, and Carrollton, as well as other facilities located in Kentucky, Alabama, South Carolina, and North Carolina. In May 2002, EPD purchased the equipment necessary to conduct CPEs for compliance with the Interim Enhanced Surface Water Treatment Rule (IESWTR) and in support of the optimization program. EPD purchased two turbidimeters and related components, sludge judges, filter probes, secci disks, chlorine analyzers, tools, and other items.

Performance Based Training (PBT) is a series of centralized training events for multiple water systems followed by facilitation activities that result in documented and measurable improvement at the individual surface water treatment plants. During 2001, EPD conducted 5 PBT training sessions in conjunction with South Carolina and EPA Region 4. Dalton, Georgia, Cherokee, North Carolina, and Greer, South Carolina were selected to participate in the PBT training program. EPD feels the training was a success and expects improvement in overall plant performance at Dalton Utilities' V.D. Parrot Plant, Mill Creek Plant, and the Freeman Springs Plant.

In August 2001, EPD began monthly staff meetings for the optimization program. Management has attended the meetings and has been very supportive of all efforts. The meetings have helped in the coordination of the AWOP activities and completion of the associated workload.

4.5 Technical Assistance, Education, and Outreach

During October and November 2001, the DWPEP staff conducted eight one-day workshops on the new federal drinking water regulations that will impact systems utilizing surface water and serving less than

10,000 persons. The new regulations include the Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR, effective January 2005), Stage 1 Disinfectants/Disinfection Byproduct Rule (Stage 1 D/DBPR, effective January 2004), and the Filter Backwash Recycling Rule (FBRR, effective August 2001). The workshop covered the following topics: a general overview of the new rules; developing a sample site plan for disinfection byproduct monitoring; monitoring requirements for Total Organic Carbon (TOC) and alkalinity; disinfection profiling and benchmarking; daily CT and *Giardia* log inactivation calculations; sanitary surveys; and the new monthly operation report forms. The workshops also included information to help these systems address and improve their security. A total of 171 public drinking water personnel attended the workshops, which were held in the Forsyth, Warm Springs, Douglasville, Jasper, Clarksville, Athens, Thomson, and Helen. Written training material, computer forms, and software were distributed to all attendees to assist in compliance with these new regulations.

4.6 Compliance and Enforcement Mechanisms

EPD continues to utilize informal and formal enforcement actions, such as written Notices of Violations (NOVs), Consent Orders, and Administrative Orders to obtain compliance with the federal and State drinking water regulations. Enforcement is an important tool to deal with PWSs that lack adequate capacity. EPD's stringent enforcement program has been a significant factor in encouraging private PWSs with limited capacity to physically merge or consolidate with local governmentally owned water systems or water authorities.

The continued use of negotiated settlements in the form of Consent Orders is the most effective enforcement mechanism, rather than mandatory fines or civil penalties. Consent Orders allow EPD the flexibility to set appropriate penalties based upon the level of deficiencies and the negotiated plan to correct the violations in a timely manner. Please refer to Figure 4-1 for a graphical representation of the number of enforcement orders issued for violations of the SDWA and/or the Permit to Operate a Public Water System.

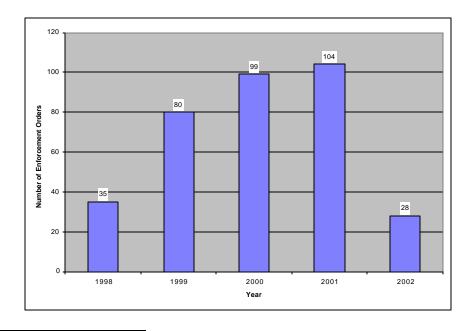


Figure 4-1. Yearly EPD enforcement orders for public water systems.²

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² For 1998, the data includes only enforcement orders issued after June 1998, the effective date of EPD's Rules for Public Participation in Enforcement of Environmental Statues and Water Quality Control, Chapter 391-1-3. For 2002, the number of enforcement orders is as of May 2002.

Whenever possible, EPD encourages consolidation of a water system with a nearby local governmentally owned water system or water authority. If formal enforcement action is being taken on a private water system, EPD may offer lower penalties if the water system agrees to connect to a local governmentally owned water system or water authority within a reasonable period of time. These water systems have the best track records for compliance and customer service, are generally larger systems, and have the TMF resources to provide safe, reliable drinking water on a consistent basis. Figure 4-2 displays the number of consolidations in Georgia by year and indicates that, in any one year, an average of 34 water systems are successfully consolidated with a local governmentally owned PWS or water authority.

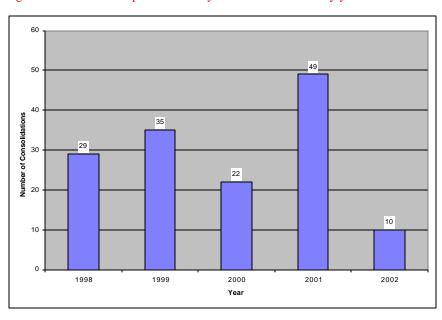


Figure 4-2. Number of public water system consolidations by year.³

NOVs are another beneficial enforcement and compliance mechanism used by EPD to assist PWSs in acquiring and maintaining adequate TMF capacity. NOVs provide the water system personnel with official, written documentation of violations of the SDWA and/or the Permit to Operate a Public Water System and offer the system an opportunity to return to compliance (in order to avoid further enforcement, including possible civil penalties).

In response to a recent State audit, EPD has taken additional measures to reduce the number of monitoring and reporting violations and the number of systems classified as SNCs by USEPA. The evaluation indicated that approximately 27% of PWSs in Georgia had significant monitoring and reporting violations during FY 1997, as compared to a national average of 17%. To improve in this area, the Drinking Water Compliance Program (DWCP) began utilizing the Safe Drinking Water Information System (SDWIS) to identify systems that fail to submit quarterly microbiological samples or annual nitrate/nitrite samples before the end of the monitoring period. Reminder notices are then sent to these water systems in advance of the possible violations in order to allow them to perform the required testing and remain in compliance. In addition, multiple violation reports, which list systems with a pattern of repetitive violations, are sent to the EPD District Offices on a regular basis to help them identify systems that may need additional attention. Finally, monitoring schedules have been made available to any water systems that request them. EPD hopes that the additional efforts will reduce the number of federal monitoring and reporting violations, and ultimately the number of systems classified as SNCs.

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³ For 2002, the number of consolidations is as of May 2002. The consolidations presented represent connection to a local governmentally owned public water system or water authority.

4.7 Voluntary Drinking Water Fee System

The voluntary drinking water fee system, established by EPD, makes compliance monitoring available to all PWSs at a very reasonable cost. Under an optional "Drinking Water Service Contract", EPD provides a water system with laboratory and related services that are consistent with the owner's need to comply with the NPDWRs and related regulations. EPD specifically agrees to provide the required laboratory analyses, sampling containers and instructions (as monitoring is required), written reports on the results of the analysis of each sample, technical assistance regarding corrosion control treatment, and limited vulnerability assessments. The drinking water service fee is based on the total population served by the water system, the population type (community or non-community), the type of source water, and the number of entry points.

As of April 2002, a total of 2,037 PWSs were benefiting from the services provided by drinking water fee system, roughly 80.5% of all PWSs. Further data analysis indicates that 1,374 out of 1,666 CWSs (82.5%), 463 out of 604 TNCWSs (76.6%), and 200 out of 262 NTNCWSs (76.3%) are utilizing the services offered by the drinking water fee system. Without the drinking water fee system, many small PWSs would have difficulty complying with the NPDWR monitoring requirements due to the cost of testing and the complexity of the monitoring schedules.

4.8 Operator Training

Through the use of DWSRF 15% set-aside funds, Georgia contracted separately with GWWI and GRWA to develop curriculum and training materials to prepare local water system personnel to successfully pass the new Class IV Water Operator exam. Over the two-year contracts, GWWI and GRWA were each required to conduct a minimum of 30 classes and provide each attendee with course material and a copy of the California State University, Sacramento's "Small Water System Operation & Maintenance Manual," or equal.

Since the execution of the contract in December 2000, the training materials and course schedule have been developed by GWWI and GRWA. From January 2001 to December 2001, GWWI conducted 15 classes throughout Georgia and trained approximately 150 students. From January 2001 to December 2001, GRWA conducted 11 classes throughout Georgia and trained approximately 469 students. From January 2002 to June 2002, GRWA conducted 5 classes and trained approximately 164 students.

Through the use of DWSRF 10% set-aside funds, Georgia has also contracted with GWWI to provide training to all water and wastewater operators and laboratory analysts in a permanent facility dedicated for that purpose. The facility had to be capable of supporting a 12-month training program for approximately 2,000 students and/or 100 courses. Under the contract, funds were made available for renovation and modification of the existing training facilities in an effort to improve upon GWWI's training program. Over the contract period of August 1999 to July 2000, GWWI conducted 88 training classes and trained approximately 1,000 students. The training program targeted all water system operator classification levels and all areas of water system operation and maintenance. From August 2000 to July 2001, GWWI conducted 112 similar training courses and trained approximately 1,500 operators.

GRWA has also conducted operator training targeting all classification levels and all areas of water system operation and maintenance. Funding for the training is allocated by the State legislature. From January to June 2001, GRWA conducted approximately 75 to 80 training classes and trained a total of 1,862 persons. Approximately 60 of the training classes (attended by a total of approximately 1,006 persons) were directly related to operator certification requirements. From July 2001 to June 2002, GRWA conducted approximately 111 training classes and trained a total of 2,729 persons.

Approximately 99 of the training classes (attended by a total of approximately 1,332 persons) were directly related to operator certification requirements.

4.9 Operator Certification

Georgia obtained USEPA approval for its operator certification program on May 1, 2001, in conformance with Section 1419 of the SDWA, as amended. Georgia's operator certification program was revised to include an exam for Class IV Water Operators in accordance with the federal guidelines. The exam requirement for prospective Class IV Water Operators will help ensure that these licensed operators will have the required knowledge and ability to successfully operate and maintain groundwater systems serving populations of 25 to 999 people. The exams for all operator classification levels are developed and validated by the Association of Boards of Certification. In its capacity development strategy program, EPD has utilized many resources and placed a lot of emphasis on operator training and certification. EPD realizes that experienced, certified operators have the knowledge and dedication needed to properly operate and maintain a PWS. Figure 4-3 shows graphical representation of the number of certified operators by classification level for 2001 and 2002. The data have established a baseline for EPD to measure progress in operator training and certification.

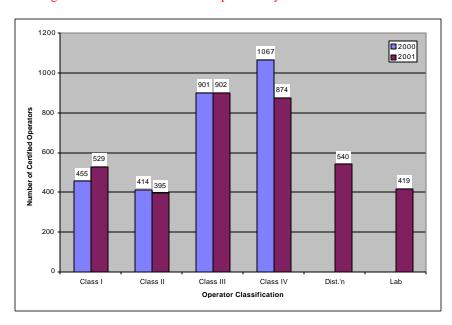


Figure 4-3. Number of certified operators by classification level in 2000 and 2001. 4,5

As part of the capacity development strategy, EPD has also tracked the number of operators taking the various exams for each water system operator classification level and the corresponding passing percentages. The information indicates how many new operators are attempting to obtain an initial Class IV, Class III, distribution, or laboratory analyst license and also indicates how many operators are attempting to increase their level of certification. Figure 4-4 contains operator examination data for 2001 that was obtained from the State Board of Examiners for Water and Wastewater Operators and Laboratory Analysts. The data indicates that a substantial number of individuals are receiving operator training (a prerequisite for the certification exams) and are attempting to become licensed water system

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 $^{^{\}rm 4}$ The numbers of certified operators are as of May 2002.

⁵ The data was obtained from the State Board of Examiners for the Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts.

operators or laboratory analysts. In the future, EPD will continue to look for ways to help improve the passing rates for the various certification exams.

Figure 4-4. Operator examination data for 2001.

Operator Classification	Number of Applicants	Passing Percentage (%)
Class I	158	59
Class II	100	76
Class III	288	56
Class IV	131	56
Distribution	275	36
Laboratory Analyst	38	82

4.10 Clerk, Manager, and Elected Official Training

GRWA has contributed to the clerk and manager training programs conducted at the Carl Vinson Institute of Government of each February and September. Previous topics include, but are not limited to, SDWA compliance issues, water rates, water conservation, distribution systems, customer service, operator training, record keeping, sampling, and CCR requirements. GRWA anticipates including security issues during future sessions.

GRWA recently partnered with the Municipal Electric Authority of Georgia, the Municipal Gas Authority of Georgia, and Georgia Public Web in developing a training program for elected officials during Georgia Municipal Association (GMA) conferences. The subject content focuses on maximizing utility enterprise funds and was approved by GMA's training committee. The initial 6-hour training presentation was conducted in Valdosta, Georgia during the May 2002 GMA Spring Conference and was attended by approximately 40 elected officials. GRWA anticipates this expanded option will become a continuing part of the GMA conference training agenda.

4.11 Source Water Assessment and Delineation

USEPA approved Georgia's Source Water Assessment and Protection (SWAP) Implementation Plan on May 1, 2000. Georgia's deadline for completion of source water assessments is November 1, 2003. Efforts to fund regional surface water system SWAP initiatives using DWSRF 15% set-asides have been completed. Over \$2.5 million of contracts were negotiated with various entities to assist EPD with SWAP implementation and the information is summarized in Figure 4-5.

As stated earlier, the surface water systems in Georgia serve approximately 78% of the total population served by all CWSs. It is critical that the State of Georgia protect these supplies for sustainable use by these water systems and their customers. The SWAP contractors will assist the surface water systems in delineating the source water supply areas, identifying potential pollution sources, and assessing the susceptibility of the water supply intakes to contamination. The results of the source water assessments will provide the information necessary for the State of Georgia to develop programs to protect and preserve these critical sources of public water supply. As of May 2002, EPD has received SWAPs for 35 surface water intakes associated with 22 water systems, including the majority of the metropolitan Atlanta area.

Figure 4-5. Source water assessment and delineation contracts by organization.

Organization	# Intakes	# PWSs 6
Atlanta Regional Commission	28	16
Northeast Georgia Regional Development Center	4	3
Northeast Georgia Regional Development Center	20	12
Columbus Water Works	3	3
Lake Allatoona Preservation Authority	7	6
City of Villa Ricca	10	6
Coosa Valley Regional Development Center	18	14
Middle Georgia Regional Development Center	6	3
McIntosh Trail Regional Development Center	9	4
Chattahoochee-Flint Regional Development Center	13	6
Georgia Mountains Regional Development Center	11	9
Augusta Utilities	10	6
Savannah Water and Sewer Bureau	1	1
Georgia Rural Water Association	5	5
Gainesville College	4	3
University of Georgia College of Ag and Environmental Sciences	7	5
Total	156	102

In addition to the SWAP related contracts, a contract was executed with the Carl Vinson Institute of Government of the University of Georgia to facilitate an ad hoc EPD managers group to sort out the many watershed related requirements coming out of EPD. In June 2001, the contractor published a guidebook titled, "Linking State Water Programs to Watershed Management". The purpose of the guidebook is to reduce confusion about state water programs that have similar water protection and planning requirements, as well as to show where the various programs can be linked. A copy of the guidebook can be obtained from EPD's Water Resources Branch.

4.12 Consumer Confidence Reports

EPD has established a three-year contract with the Georgia Water & Pollution Control Association (GWPCA), using Performance Partnership Grant (PPG) funds, to assist CWSs in completing the CCR requirements of the 1996 Federal SDWA Amendments. As part of the contract, GWPCA prepared and distributed the "Consumer Confidence Report Guidance and Preparation Manual, May 1999", to water systems affected by the new rule, directly trained over 750 water system personnel in a formal classroom setting, fielded over 1,400 technical support calls, presented material on the CCR program to GMA, the Association County Commissioners of Georgia (ACCG), the Carl Vinson Institute of Government, Georgia's Peer Review Program, numerous Rural Development Centers (RDCs), nine GWPCA conferences, and provided direct technical support by various other means.

Figure 4-6 summarizes the existing compliance data for the CCR Rule. Based on the compliance history, EPD feels the CCR assistance was a success and reduced the rate of non-compliance for a new, complex regulation that affected many small water systems in Georgia. However, it should be noted that the initial compliance rates for the regulation were significantly lower and both formal and informal enforcement actions were necessary to obtain compliance from some water systems. For example, for the 2000 reporting year, the initial compliance rate for water systems meeting the July 1 delivery deadline was less than 70%.

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⁶ The City of Canton, Cherokee County Water & Sewerage Authority, and Cobb-Marietta Water Authority are included in the table twice under contracts with both the Lake Allatoona Preservation Authority and the Atlanta Regional Commission.

Figure 4-6. Compliance data for the CCR Rule.

Reporting Year	CCRs Received	CCRs Required	Compliance Rate (%)
1998	1,591	1,597	99.6
1999	1,622	1,628	99.6
2000	1,569	1,584	99.1

4.13 Peer Review Program

EPD continues to support the Peer Review Program through the training of peer review team volunteers and its involvement with GWWI. Training is provided on well water sources, water treatment, distribution, storage, pumps and pump facilities, solids handling, monitoring and reporting, management and operations, and related items.

The main goal of the Peer Review Program is to help small water systems comply with current federal and State regulations, including the SDWA. These benefits are achieved by having a participating water system complete a comprehensive self-assessment of their water system in order to identify existing problems and deficiencies. A peer review team then conducts an on-site evaluation of the system. The team is made up of trained volunteers from surrounding communities (local cities and counties within each respective District) that are able to provide a wide range of expertise in water system management and operations. Upon completion of the in depth evaluation, the peer review team presents their results to the management of the participating system, along with recommendations for improved operations. One of the attractive features of the Peer Review Program is that all activities and written reports are held in the strictest confidence between the peer review team and the participating system. The Peer Review Program is geared towards small, rural communities, but it is not limited by size or function.

The responsibility for implementation of the Peer Review Program was recently transferred to GWWI. In 2001, GWWI implemented a massive advertising campaign aimed at increasing local government officials' awareness of the benefits of the Peer Review Program. Mailers and post cards were developed and distributed to over 1,000 local officials. In addition, GWWI developed an exhibit and displayed it at three conferences: the GWPCA Spring Conference in Columbus from April 16 - 18, 2001; the ACCG Annual Conference in Jekyll Island from April 22 - 24, 2001; and the GMA Annual Conference in Savannah on June 23 – 26, 2001. In December 2001, GWPCA hosted a workshop with their national partners to discuss Peer Review Programs in other States and the Tribes. The workshop included an exchange of ideas on the common problems and challenges faced by the Peer Review Program.

In 2002, two water systems have requested assistance from the Peer Review Program. One system needed assistance in developing a Request for Proposal (RFP) for Geographic Information Systems (GIS) work. The second system needed assistance in developing an intergovernmental agreement to provide water to another jurisdiction. Both systems were provided assistance electronically. In the future, GWWI would like to expand upon the use of the internet to assist with managerial issues, including a bulletin board where water systems can ask questions and disseminate information requested by others.

4.14 Circuit-Rider Visits

Using DWSRF 2% technical assistance set-aside funds, EPD has contracted with GWRA through the Georgia Environmental Facilities Authority (GEFA) to provide a minimum of 625 "circuit rider" type technical assistance visits each year on an as needed or as requested basis. Under the provisions of the contract, GWRA is required to provide up to 10% of the visits within 48 hours of notification by EPD in order to quickly address problems posing an immediate threat to public health. Technical assistance provided by GRWA includes, but is not limited to, rate studies, water audits and leak detection surveys,

pipe and valve location services, infrastructure assessments, source water protection, operation & maintenance programs, on-site operational assistance, troubleshooting and problem-solving, fluoridation equipment evaluations and inspections, and the identification of financing alternatives. For the contract period from July 1, 1999, to June 30, 2000, GRWA field technicians made 641 face-to-face contacts. The number of contacts by reason is displayed in Figure 4-7.

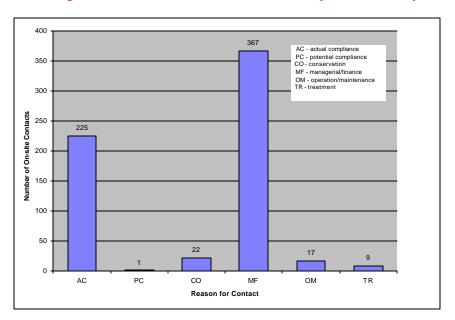


Figure 4-7. Number of GRWA on-site contacts by reason from July 1999 to June 2000.

For the contract period from July 1, 2000, to June 30, 2001, GRWA made 640 on-site technical assistance visits. Of these visits, 340 were made to private water systems and 300 visits were made to governmentally owned water systems. A total of 496 or approximately 77.5% of the visits were made to systems serving less than 3,300 persons. For the contract period from July 1, 2001, to June 30, 2002, GRWA made 520 on-site technical assistance visits. It should be noted that the contract was revised by GEFA in January 2002 to lower the number of required technical assistance visits to 425 each year.

As stated previously, better coordination between EPD and GRWA is needed to more effectively target the systems most in need of assistance. A copy of the list of CWSs and NTNCWSs with a history of significant non-compliance for FY 1997 to FY 1999 has been forwarded to the GRWA field technicians. In the future, EPD plans to forward running base SNC lists or multiple violation reports for follow-up by GRWA personnel in an effort to reduce the number of historical SNCs.

4.15 Drinking Water State Revolving Fund

The 1996 SDWA Amendments authorize a DWSRF program where the USEPA awards capitalization grants to the States. Georgia utilizes a large portion of the grant to provide low interest loans to eligible PWSs needing infrastructure improvements to achieve or maintain compliance with the SDWA requirements or to protect public health. The areas of infrastructure improvement funded through the DWSRF program include treatment, sources of public water supply, transmission (water mains and pumping facilities), and storage. Figure 4-8 displays the total dollar amount of DWSRF project assistance provided to water systems each year from 1997 to 2001.

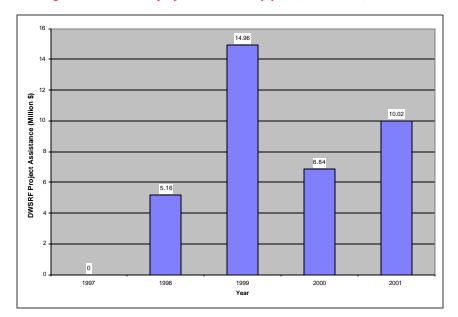


Figure 4-8. DWSRF project assistance by year (in million \$).

Through 2001, a total of \$37 million of DWSRF project assistance has been awarded to water systems, funding a total of 59 water system improvement projects. Figure 4-9 displays detailed statistics on DWSRF project assistance for the period from 1997 to 2001.

Figure 4-9. Statistics on DWSRF project assistance for the period from 1997 to 2001.

Category	Number of Projects	Percent of Total Projects (%)	Loan Amount (Million \$)	Percent of Total Loan Amount (%)
Treatment	8	13.6	8.0	21.7
Transmission	20	33.9	16.7	45.1
Source	19	32.2	9.0	24.2
Storage	9	15.2	3.1	8.3
Other	3	5.1	0.2	0.6

4.16 Local Government Initiatives

The Georgia Water Management Campaign (Campaign) was established by a three-party contract between EPD, GEFA, and ACCG to enhance capacity development by communicating clearly to local governments the need for improving the TMF capacity of water systems. The goal was to obtain support for capacity development, as well as source water assessment and water resource protection.

The Campaign formed a Private Systems Work Group in order to develop a better understanding of the appropriate relationship between local governments and private water system owners and to identify policy issues and recommendations for consideration by EPD, ACCG, and GMA. The work group assisted in the development of an "Application for Community Water System Certificate of Concurrence" and a "Model Agreement" to be used by governmentally owned water systems and water authorities working with privately owned CWSs. Both documents, when applied, will help ensure that a private water system is designed, constructed, and operated in accordance with the standards set forth by the governmentally owned water system or water authority. In creating these documents, the goal of the work group was to facilitate the future takeover and acquisition of the small private water systems.

In an effort to help local governments identify, analyze, and implement comprehensive water management strategies, the Campaign also published and distributed more than 1,000 copies of a guidance document titled, "The Service Delivery Act: A Guide for Carrying Out Water Supply/ Wastewater Service Negotiations." The guidance document discusses alternate service delivery considerations in detail, such as privatization, contract operation, satellite management, shared services, consolidation or regionalization, private water system takeover and acquisition, and etc. As a separate project, the Campaign developed and published 16 case studies highlighting intergovernmental cooperation and service delivery arrangements for assuring the provision of drinking water and wastewater services. In each case, the TMF considerations of the program are discussed in detail. The Campaign also completed a local government executive training program to inform officials on issues such as drinking water capacity development and source water protection, as well as several outreach and awareness tools (such as public service announcements and videos that can be released to the news media).

Locally, Mr. Gerald Kemp, a GRWA District Advisor and City of Comer Public Works Director, has been developing a website named "Cities' Surplus Exchange", where city and county governments can share, sell, trade, and loan their surplus equipment. On the website, utilities will be able to voluntarily list surplus equipment inventories, and this information will be made available to other interested governments. The resource will provide water systems with quick, easy access to critical equipment. In addition, the program will benefit participating governments by eliminating the need to maintain large inventories, thus reducing capital expenditures.

5.0 Conclusion

EPD has established and successfully implemented a capacity development program that provides a solid foundation for future activities to help insure all Georgians are provided safe, reliable drinking water. To date, significant progress has already been made towards improving the technical, managerial, and financial capacity of the PWSs in Georgia. New water systems are being designed and constructed to meet more stringent standards for quality and reliability, and new owners are required to demonstrate adequate managerial and financial capacity prior to commencing operation. At the same time, deficient or poorly run PWSs are being encouraged, through various compliance and enforcement mechanisms, to consolidate or merge with nearby governmentally owned and operated water utilities.

Under the various capacity development strategy efforts, all PWSs in Georgia are being offered or provided assistance to help them acquire and maintain technical, managerial, and financial capacity. The assistance includes, but is not limited to, technical engineering review of water system projects, direct onsite technical assistance, in depth sanitary surveys and more frequent inspections, proactive compliance and enforcement initiatives, inexpensive and convenient training opportunities, low interest financing alternatives to correct system deficiencies, affordable monitoring and testing services, and other local government initiatives.

While EPD has the lead role and regulatory authority for the capacity development program, this agency will not be able to fully achieve the goals of the program without the active ongoing involvement of our various stakeholder and partner organizations. These organizations, as mentioned throughout the report, have played a major role in the capacity development program and contributed immeasurably to the success that has been achieved so far. In the future, EPD will continue to evaluate the success of the capacity development program, maximize the use of all available resources to help the water systems most in need, and develop effective working relationships with other State and local agencies and organizations to further achieve Georgia's long-term goals.



Published by The Environmental Protection Division State of Georgia

This publication was prepared with cooperation from the Association County Commissioners of Georgia, Georgia Environmental Facilities Authority, Georgia Municipal Association, Georgia Water & Pollution Control Association, Georgia Rural Water Association, Georgia Water & Wastewater Institute, and State Board of Examiners for Water and Wastewater Operators and Laboratory Analysts.